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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/579,274	10/26/2006	Michael A. Reid	65584(50024)	8867
21874 7590 04/03/2009 EDWARDS ANGELL PALMER & DODGE LLP P.O. BOX 55874 BOSTON, MA 02205				
EXAMINER				
HARCOURT, BRAD				
ART UNIT		PAPER NUMBER		
3676				
MAIL DATE		DELIVERY MODE		
04/03/2009		PAPER		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/579,274

Applicant(s)

REID, MICHAEL A.

Examiner

Brad Harcourt

Art Unit

3676

Period for Reply -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 January 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 21 and 23-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 21 and 23-26 is/are rejected.
- 7) ☒ Claim(s) 3-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 7-10, 21, 23, 24 and 26 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Rayssiguier et al. (US Patent Application Publication No. 2002/0046834).

In reference to claims 1, 21, 22 and 23, Rayssiguier discloses a plug 1 for controlling fluid flow in a well bore, the plug 1 comprising a substantially cylindrical body 52 adapted for location on a work string, the body 52 including a bore 14 through a portion thereof and one or more radial ports 20a and 20b for passage of fluid from the bore 14 to an outer surface of the body, an actuating member 36 moveable relative to the body 52 so as to cover the one or more radial ports 20a and 20b in a first position and uncover the one or more radial ports 20a and 20b in a second position wherein movement of the actuating member is controlled by an actuating mechanism 36, the mechanism 36 being operable under pressure in the well bore from line 18 to set the plug in a number of states. The different states the plug can be set in (Figs. 4-13) are dependent on index sleeve 134 and index pin 132. Either of the ports 20a or 20b can be closed but openable, locked closed, or open depending on the position of the index sleeve (par. 0071-0079).

In reference to claim 2, actuating mechanism 36 comprises one or more pistons 60 and 128 that are operated on by the applied pressure.

In reference to claim 7, actuating mechanism can include sensors to "transmit information to the control surface" (par. 0144) so that a controller can modify pressure in control line 18. While Rayssiguier does not explicitly disclose a motor, the presence of a hydraulic line implies that inherently some motor apparatus would have to be involved so that hydraulic fluid could be pumped down hydraulic line 18.

In reference to claims 8 and 10, index sleeve 134 and key 132 secure actuating member 36 in either upper or lower positions.

In reference to claim 9, actuating member 36 includes sleeve 60 and 134.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 11 and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Rayssiguier et al. (US Patent Application Publication No. 2002/0046834).

Rayssiguier discloses all of the limitations of the above claims with the exception of having a range of pressure of 1200 to 1800 psi or pressure testing the plug. The examiner takes Official Notice that hydraulic operating pressures from 1200 to 1800 psi are common in the art. It would have been obvious to a person having ordinary skill in

the art at the time of the invention to have the apparatus of Rayssiguier operable by hydraulic pressures from 1200 to 1800 psi should the wellbore conditions require it. Additionally, it would have been obvious to a person having ordinary skill in the art at the time of the invention to test the apparatus of Rayssiguier as any product or process should be tested before use.

Allowable Subject Matter

Claims 3-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 1/12/2009 have been fully considered but they are not persuasive.

Applicant argues that Rayssiguier does not disclose a plug for controlling fluid flow in a wellbore. The device 1 has means to plug its two outlets 20a and 20b and therefore in a reasonably broad sense can be considered a plug. Additionally, plug 1 is intended to control fluid flow and pressure in a downhole element 370 that controls fluid flow in a wellbore (Fig. 23A). The flow in control line 372 is fluid flow in a wellbore, and the flow inside of valve 370 is also considered to be fluid flow in a wellbore.

Applicant argues that Rayssiguier does not disclose an actuating member that covers each of the radial ports in a first position and uncovers each of the radial ports in

a second position. Claim 1 calls for "one or more radial ports for passage of fluid" (line 4), and therefore only requires 1 radial port. Rayssiguier discloses a state where one of the radial ports is closed and a state where one of the radial ports is open (Figs. 4-12). If the claim was amended to include 2 or more ports instead of 1 or more ports this rejection would be overcome.

Applicant argues that Rayssiguier does not disclose states where the actuator is in a first position under a pressure determined state, a second state where the actuator member is locked in a first position regardless of pressure, and a third state where the actuator is in a second position by an increase in pressure. Actuator 36 is operated by pressure from piston 90a and can be locked in any position by index sleeve 134 and index pin 132.

Applicant argues that the rejection to claims 11 and 25 should be withdrawn as the pressure range of 1200 to 1800 psi is representative of production fluid pressure and would not be the hydraulic line pressure. Wellbore production fluid pressure varies from well to well, and a valve, such as 370, may require more or less pressure in control line 372 to actuate a valve depending on the wellbore pressure. Should conditions in the well be such that a pressure of 1200 to 1800 psi be required in control line 372 to actuate valve 370, it would have been obvious to a person having ordinary skill in the art to provide that much pressure.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Brad Harcourt whose telephone number is (571)272-7303. The examiner can normally be reached on Monday through Friday from 8:30 to 6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jennifer Gay can be reached on 571-272-7029. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Shane Bomar/
Primary Examiner, Art Unit 3676

BH
3/31/09